

Table of comparative maximum and minimum temperatures for February.

State or Territory.	Stations.	For 1888.		Since establishment of station.				Length of record.
		Max.	Min.	Max.	Year.	Min.	Year.	
Alabama.....	Mobile.....	75.3	30.0	80.5	1887	19.3	1886	18
Do.....	Montgomery.....	69.8	24.8	81.2	1883	14.4	1886	16
Arizona.....	Prescott.....	63.2	22.5	80.0	1879	11.0	1880	12
Do.....	Fort Apache.....	68.1	23.9	74.0	1881	9.0	1880	10
Arkansas.....	Fort Smith.....	69.8	16.5	78.4	1883	1.0	1885	6
Do.....	Little Rock.....	75.0	18.0	77.0	1882	7.6	1886	9
California.....	San Francisco.....	76.3	41.9	71.0	1886	33.1	1887	17
Do.....	San Diego.....	66.8	47.5	82.6	1883	35.0	1880	17
Colorado.....	Denver.....	70.5	15.5	72.0	1879	22.0	1883	16
Do.....	Montrose.....	56.6	15.9	59.0	1887	2.3	1887	4
Connecticut.....	New Haven.....	48.7	1.5	65.0	1880	7.7	1886	16
Do.....	New London.....	50.0	0.6	62.0	1880	6.0	1871	15
Dakota.....	Fort Buford.....	49.2	27.8	57.0	1882	41.2	1887	10
Do.....	Yankton.....	55.8	19.4	68.0	1876	24.8	1886	15
Dis. of Columbia.....	Washington City.....	61.0	12.6	78.0	1874	2.3	1886	18
Florida.....	Jacksonville.....	81.7	32.5	83.6	1887	24.3	1886	17
Do.....	Key West.....	80.5	58.8	87.0	1874	52.3	1886	18
Georgia.....	Atlanta.....	68.0	13.0	74.5	1883	8.0	1885	10
Do.....	Savannah.....	72.0	27.0	80.0	1883	19.0	1886	18
Idaho.....	Boise City.....	63.8	24.0	65.2	1886	12.0	1883	11
Illinois.....	Chicago.....	65.5	9.5	74.0	1880	2.6	1886	17
Do.....	Indianapolis.....	47.2	17.5	63.0	1880	13.7	1885	16
Indiana.....	Fort Sill.....	59.8	2.1	72.0	1883	9.0	1885	15
Indian Ter.....	Dubuque.....	74.8	18.8	79.0	1880	3.5	1883	11
Iowa.....	Des Moines.....	51.0	23.0	67.2	1882	31.0	1875	15
Do.....	Dodge City.....	57.2	20.6	68.0	1880	23.0	1883	10
Kansas.....	Leavenworth.....	78.3	4.5	78.0	1876	20.0	1883	14
Do.....	Louisville.....	62.9	5.0	73.0	1876	16.2	1885	17
Kentucky.....	New Orleans.....	66.8	8.0	77.9	1887	1.3	1885	16
Louisiana.....	Shreveport.....	74.8	35.0	81.5	1887	25.0	1886	18
Do.....	Eastport.....	45.8	8.3	48.6	1886	20.0	1876	15
Maine.....	Portland.....	43.9	7.0	58.0	1880	10.2	1886	17
Maryland.....	Baltimore.....	59.9	11.1	78.0	1874	1.1	1886	16
Massachusetts.....	Boston.....	56.0	4.0	64.0	1880	6.6	1886	18
Michigan.....	Marquette.....	40.2	26.6	69.0	1877	27.0	1875	13
Do.....	Grand Haven.....	43.7	7.0	58.0	1880	24.0	1875	16
Minnesota.....	Saint Vincent.....	39.0	49.9	49.5	1886	29.2	1885	8
Do.....	Saint Paul.....	45.3	33.0	59.0	1880	32.0	1875	17
Mississippi.....	Vicksburg.....	74.0	28.0	83.1	1883	16.0	1886	16
Missouri.....	Saint Louis.....	62.8	3.5	74.1	1887	7.9	1886	18
Montana.....	Ft. Assinaboine.....	49.2	21.8	63.2	1886	55.4	1887	9
Do.....	Helena.....	56.5	1.0	62.1	1886	40.5	1887	8
Nebraska.....	North Platte.....	67.8	4.2	68.3	1882	22.2	1885	14
Do.....	Omaha.....	62.5	17.2	66.0	1880	24.9	1883	16
Nevada.....	Winnemucca.....	62.9	16.6	69.0	1879	19.5	1883	10
New Jersey.....	Atlantic City.....	55.2	2.7	71.0	1880	5.0	1875	15
New Mexico.....	Santa Fé.....	55.0	16.0	75.0	1879	3.0	1879	16
New York.....	Buffalo.....	51.2	8.0	63.8	1883	13.0	1875	16
Do.....	New York City.....	54.8	3.0	69.0	1874	4.0	1873	17
North Carolina.....	Charlotte.....	70.0	15.5	76.5	1883	5.9	1886	10
Do.....	Wilmington.....	72.0	24.6	81.0	1880	10.0	1886	18
Ohio.....	Cincinnati.....	61.2	5.6	73.0	1883	9.6	1885	18
Do.....	Sandusky.....	53.1	3.0	70.0	1883	14.9	1885	11
Oregon.....	Portland.....	60.8	30.0	65.0	1886	7.0	1883	15
Do.....	Roseburg.....	67.2	28.2	72.1	1886	3.3	1884	11
Pennsylvania.....	Pittsburg.....	61.1	1.1	76.5	1883	10.0	1875	15
Do.....	Philadelphia.....	58.5	2.5	75.0	1874	2.4	1886	18
Rhode Island.....	Block Island.....	48.8	0.9	54.1	1887	1.0	1886	9
South Carolina.....	Charleston.....	71.8	27.5	80.4	1887	13.3	1886	15
Tennessee.....	Knoxville.....	67.0	9.1	79.0	1871	4.1	1886	18
Do.....	Memphis.....	71.0	21.0	79.0	1883	5.8	1886	16
Texas.....	Brownsville.....	83.9	45.9	85.0	1876	27.0	1883	13
Do.....	Fort Elliott.....	78.0	9.4	78.0	1880	10.0	1883	9
Utah.....	Salt Lake City.....	58.7	23.5	68.0	1879	13.0	1884	14
Virginia.....	Lynchburg.....	66.0	11.3	75.0	1874	1.3	1886	15
Do.....	Norfolk.....	68.7	17.2	81.0	1871	3.5	1886	18
Washington.....	Spokane Falls.....	58.0	22.0	55.3	1886	25.1	1883	8
Do.....	Olympia.....	59.0	29.0	61.0	1886	2.0	1884	11
Wisconsin.....	La Crosse.....	48.0	28.0	65.0	1882	34.0	1875	16
Do.....	Milwaukee.....	45.3	20.7	60.0	1882	23.6	1885	18
Wyoming.....	Cheyenne.....	56.2	7.5	63.2	1886	28.2	1884	15

RANGES OF TEMPERATURE.

The monthly and the greatest and least daily ranges of temperature at Signal Service stations are given in the table of miscellaneous meteorological data. In the extreme northwest, upper Mississippi and Missouri valleys the monthly ranges generally varied from 70° to 85°; along the Gulf and Pacific coasts they were less than 40°, being below 30° at most stations.

In the table below are given some of the greatest and

least monthly ranges for February, 1888, with the maximum ranges for any month since the establishment of station:

Stations.	For February, 1888.	Greatest in any month since establishment of station.	Length of record, years.	Stations.	For February, 1888.	Greatest in any month since establishment of station.	Length of record, years.
Saint Vincent, Minn.....	88.9	99.3	8	Tatoosh Island, Wash..	16.4	41.4	5
Moorhead, Minn.....	85.0	93.5	8	Key West, Fla.....	21.7	46.0	18
Duluth, Minn.....	82.5	80.4	18	Fort Canby, Wash.....	21.2	44.3	5
Davenport, Iowa.....	80.1	73.0	17	Astoria, Oregon.....	22.0
Omaha, Nebr.....	79.7	93.2	18	Port Angeles, Wash.....	23.1	42.0	4
Fort Totten, Dak.....	79.1	93.2	4	San Diego, Cal.....	26.3	55.0	18
Concordia, Kans.....	78.9	96.5	4	Olympia, Wash.....	30.0	57.8	11
Saint Paul, Minn.....	78.3	90.7	18	San Francisco, Cal.....	34.4	50.3	17

From the above table it will be seen that the monthly ranges at Duluth, Minn., and Davenport, Iowa, for February, 1888, are the greatest that have yet occurred at those stations. The greatest monthly range of temperature shown by records of the Signal Service, is 117°, which occurred at Fort Benton, Mont., in December, 1880.

FROST.

It is not considered of sufficient importance to give a detailed statement of the occurrence of frost in the Northern States. In Southern States, where the monthly mean temperatures generally ranged above 50°, frost occurred as follows:

Alabama.—8th, 9th, 12th, 13th, 14th, 26th to 29th.

Arizona.—2d to 9th, 11th to 14th, 19th to 25th, 27th.

Arkansas.—6th, 8th, 12th, 13th, 16th, 19th to 25th, 27th.

California.—1st to 10th, 15th to 20th, 22d to 25th, 27th to 29th.

Florida.—14th, 20th, 26th to 29th.

Georgia.—9th, 13th, 14th, 17th, 18th, 26th to 29th.

Louisiana.—8th, 12th to 14th, 17th, 19th, 25th to 29th.

South Carolina.—1st to 3d, 9th, 13th to 19th, 26th to 29th.

The most southerly stations reporting frost were as follows: Mobile, Ala., 27th; Fort Huachuca, Ariz., 3d, 5th, 8th, 20th, 21st; Riverside, Cal., 2d, 3d, 5th, 7th, 8th, 20th, 24th; Archer, Fla., 14th, 28th, 29th; Cedar Keys, Fla., 28th; Quitman, Ga., 28th, 29th; New Orleans, La., 27th, 28th; Abbeville, La., 28th; Biloxi, Miss., 28th.

TEMPERATURE OF WATER.

The following table shows the temperature of the sea-water for February, 1888, observed, under conditions as given, at the harbors of the several stations; the monthly range of water temperature; the average depth at which the observations were made, and the mean temperature of the air:

Station.	Temperature at bottom.				Mean temperature of air at the station.	Average depth of water in feet and tenths.
	Max.	Min.	Range.	Monthly mean.		
Canby, Fort, Wash.....	47.5	40.5	7.0	44.1	43.3	14.8
Cedar Keys, Fla.....	70.3	56.0	14.3	64.3	61.7	7.9
Charleston, S. C.....	56.0	49.5	6.5	53.4	54.0	34.2
Eastport, Me.....	35.5	32.6	2.9	33.3	22.6	16.0
Galveston, Tex.....	61.7	55.7	6.0	58.9	58.8	14.8
Key West, Fla.....	79.0	69.0	10.0	75.1	72.4	18.1
New York City.....	36.6	31.0	5.6	32.0	31.6	13.0
Pensacola, Fla.....	65.4	53.2	12.2	61.0	58.9	17.3
Portland, Me.....	32.6	29.4	3.2	30.7	23.2	15.7
Portland, Oregon.....	46.0	40.7	5.3	43.6	44.0	55.8

* Record for 27 days.

PRECIPITATION (expressed in inches and hundredths).

The distribution of precipitation over the United States and Canada for February, 1888, as determined from the reports of about eight hundred stations, is exhibited on chart iv. In the table of miscellaneous meteorological data are given, for each Signal Service station, the total precipitation, with the depart-

ures from the normal. The figures opposite the names of the geographical districts in columns for mean temperature, precipitation, and departures from the normal, show respectively the average for the several districts. The normal for any district may be found by adding the departure to the current

mean when the precipitation is below the normal, and subtracting when above.

In the Missouri Valley and the northern and middle slopes the precipitation was normal; in the southern slope, Canadian Maritime Provinces, south Atlantic and the east Gulf states it was decidedly above normal, and in all other districts there was a deficiency. In the east Gulf states the rainfall amounted to 66 per cent. more than the average, and in the south Atlantic states, 25 per cent., while in northern Florida and the southern slope the precipitation was more than double the average. In the west Gulf states there was a deficiency amounting to nearly 20 per cent. of the average; in this district, however, there was a large excess on the eastern Texas and Louisiana coasts, while a very large deficiency occurred in the northern portion. In the lower lake region and lower Ohio valley there was less than half of the normal February precipitation; in New England and the middle Atlantic states it amounted to about 75 and 90 per cent., respectively, of the normal. On the Pacific coast there was slightly less than half the average amount of rain in Washington and Oregon and only about one-third of the average in California.

DEVIATIONS FROM AVERAGE PRECIPITATION.

The following table shows for certain stations, as reported by voluntary observers, (1) the average precipitation for a series of years; (2) the length of record during which the observations have been taken, and from which the average has been computed; (3) the total precipitation for February, 1888; (4) the departures of the current month from the average; (5) and the extreme monthly precipitation for February during the period of observations and the year of occurrence:

State and station.	County.	(1) Average for the month of Feb.	(2) Length of record.	(3) Total for Feb., 1888.	(4) Departure from average.	(5) Extreme monthly precipitation for February.			
						Greatest.		Least.	
						Am't.	Year.	Am't.	Year.
<i>Arkansas.</i>		<i>Inches</i>	<i>Years</i>	<i>Inches</i>	<i>Inches</i>	<i>Inches</i>		<i>Inches</i>	
Lead Hill.....	Boone.....	6.04	6	1.81	-4.23	10.93	1884	1.47	1885
<i>California.</i>									
Sacramento.....	Sacramento.....	3.07	22	0.55	-2.52	7.12	1878	0.35	1886
Salinas.....	Monterey.....	2.24	16	0.53	-1.71	8.77	1878	0.00	1874
<i>Florida.</i>									
Merritt's Island.....	Brevard.....	2.77	11	6.01	+3.24	6.01	1888	0.15	1882
<i>Illinois.</i>									
Greenville.....	Bond.....	3.97	5	2.75	-1.22				
Peoria.....	Peoria.....	2.10	32	1.66	-0.44				
Prairieville.....	Lee.....	3.22	8	1.40	-1.82				
Riley.....	McHenry.....	1.79	25	1.17	-0.62				
Sycamore.....	DeKalb.....	2.58	7	1.16	-1.42				
Sandwich.....	DeKalb.....	2.88	38	2.59	-0.29				
<i>Indiana.</i>									
Logansport.....	Cass.....	2.75	34	2.65	-0.10	7.40	1881	0.15	1868
Spiceland.....	Henry.....	2.88	28	1.40	-1.48	8.10	1883	0.90	1872
Sunman.....	Ripley.....	4.72	5	2.28	-2.44	7.48	1884	2.28	1888
Vevay.....	Switzerland.....	3.65	21	1.64	-2.01	10.23	1884	0.40	1877
<i>Iowa.</i>									
Cresco.....	Howard.....	0.95	15	1.02	+0.07				
Monticello.....	Jones.....	1.92	34	1.48	-0.44	4.62	1887	0.32	1877
<i>Kansas.</i>									
Lawrence.....	Douglas.....	1.28	21	1.27	-0.01	4.60	1881	0.03	1870
Wellington.....	Sunman.....	1.12	10	1.12	0.00	3.73	1883	0.15	1879
Yates Centre.....	Woodson.....	1.93	8	1.49	-0.44	3.64	1881	0.55	1885
<i>Louisiana.</i>									
Point Pleasant.....	Tensas.....	6.92	7	4.19	-2.73				
Grand Coteau.....	Saint Landry.....	3.01	6	7.44	+4.43				
Mandeville.....	St. Tammany.....	6.13	4	9.02	+2.89				
New Iberia.....	Iberia.....	3.10	4	6.01	+2.91				
<i>Maine.</i>									
Gardiner.....	Kennebec.....	3.64	50	5.90	+2.26	9.47	1853		
<i>Maryland.</i>									
Cumberland.....	Alleghany.....	2.45	16	2.15	-0.30	4.93	1882	0.60	1877
<i>Massachusetts.</i>									
Barnstable.....	Bristol.....	3.63	18	2.87	-0.76				
Newburyport.....	Essex.....	4.76	9	4.65	-0.11	6.75	1886	2.99	1880
<i>Michigan.</i>									
Thornville.....	Lapeer.....	2.25	12	0.83	-1.42				
Kalamazoo.....	Kalamazoo.....	2.77	13	1.50	-1.27				
Adrian.....	Lenawee.....	3.49	10	2.20	-1.29				
<i>New Hampshire.</i>									
Concord.....	Merrimack.....	3.22	17	3.69	+0.47	5.55	1876	0.40	1877
<i>New Jersey.</i>									
South Orange.....	Essex.....	3.77	18	4.12	+0.35	6.10	1881	1.10	1877
Moorestown.....	Burlington.....	3.45	25	2.11	-1.34	6.02	1885	0.53	1877
<i>New York.</i>									
Palermo.....	Oswego.....	2.81	35	1.91	-0.90	7.30	1866	0.10	1874
Humphrey.....	Cattaraugus.....	3.19	5	1.74	-1.45	7.30	1887	1.57	1885
<i>Ohio.</i>									
North Lewisburg.....	Champaign.....	2.89	17	1.70	-1.19	5.70	1879	0.35	1872
Tiffin.....	Seneca.....	2.65	4	1.95	-0.70	6.60	1887	1.03	1885
Wauseon.....	Fulton.....	3.08	14	1.96	-1.12	7.19	1887	0.12	1877

Deviations from average precipitation—Continued.

State and station.	County.	(1) Average for the month of Feb.	(2) Length of record.	(3) Total for Feb., 1888.	(4) Departure from average.	(5) Extreme monthly precipitation for February.			
						Greatest.		Least.	
						Am't.	Year.	Am't.	Year.
<i>Oregon.</i>		<i>Inches</i>	<i>Years</i>	<i>Inches</i>	<i>Inches</i>	<i>Inches</i>		<i>Inches</i>	
Albany.....	Linn.....	6.18	9	1.26	-4.92	13.08	1881	1.26	1888
<i>Pennsylvania.</i>									
Corry.....	Erie.....	3.72	3	2.03	-1.69	6.79	1887	2.34	1886
Dyberry.....	Wayne.....	2.86	19	3.07	+0.21	5.59	1884	0.60	1877
Grampian Hills.....	Clearfield.....	3.47	24	1.73	-1.74				
Wellsborough.....	Tioga.....	5.34	11	4.54	-0.80				
<i>South Carolina.</i>									
Stateburg.....	Sumter.....	2.49	7	4.08	+1.59	4.08	1888	1.18	1883
<i>Tennessee.</i>									
Milan.....	Gibson.....	4.93	6	1.90	-3.03	7.96	1884	1.90	1888
<i>Texas.</i>									
New Ulm.....	Austin.....	4.54	16	4.66	+0.12	10.94	1882	1.06	1885
Corsicana.....	Navarro.....	2.84	3	4.91	+2.07	4.91	1888	1.11	1887
<i>Vermont.</i>									
Strafford.....	Orange.....	3.00	13	2.00	-1.00	5.9	1887	0.30	1877
<i>Virginia.</i>									
Bird's Nest.....	Northampton.....	3.66	19	2.55	-1.11	6.55	1884	1.60	1878
Dale Enterprise.....	Rockingham.....	3.45	8	2.63	-0.82	9.00	1884	0.83	1882
Variety Mills.....	Nelson.....	3.64	9	3.50	-0.14	7.12	1884	1.75	1879
Wytheville.....	Wythe.....	3.30	24	2.60	-0.70	8.00	1862	0.30	1877
<i>West Virginia.</i>									
Helvetia.....	Randolph.....	5.06	12	2.79	-2.27	8.18	1883	0.94	1877
Parkersburg.....	Wood.....	4.57	2	1.72	-2.85	7.42	1887	1.72	1888

SLEET.

During the month sleet was of common occurrence in the eastern and southeastern states, being more frequent in the first and middle decades than during the latter part of the month.

SNOW.

Only the dates of snow in Southern States are given, which are as follows:

Alabama.—Auburn, 14th; New Market, 26th, 27th; Montgomery, 27th.

Georgia.—Forsyth, 26th; Marietta, 27th; Atlanta, 26th and 27th.

Mississippi.—Lamar, 9th, 27th, and on latter date at Palo Alto, Tupelo, Batesville, Starkville, and University.

South Carolina.—Black's, Cedar Springs, and Clinton, 27th.

MONTHLY SNOWFALLS (in inches and tenths).

There was no appreciable amount of snowfall during the month to the south of the thirty-fifth parallel, except in the Rocky Mountain regions, and it appears that less than the usual quantity fell in the northern portions of the country. From Kansas and Nebraska eastward over Iowa, Missouri, and Illinois, the snowfalls generally ranged from 2 to 6; in Indiana, Ohio, and Kentucky, from 1 to 4. In Colorado, Dakota, Minnesota, the Lake region, New England, and portions of New York, Pennsylvania, and Maryland, the monthly fall was greater than in the states above-mentioned, but comparatively few stations report depths exceeding 10 inches. In the mountain regions of New England, monthly snowfalls of from 20 to 30 inches occurred, while along the southern coast comparatively little fell.

The following monthly snowfalls of ten inches or more occurred; but in states having less, the maximum amount is also given:

Arizona: Prescott, 2. *Arkansas:* Eureka Springs, 0.6. *California:* Cisco, 7. *Colorado:* Aspen, 25; Pandora, 23; Trinidad, 11. *Connecticut:* New Hartford, 11.2. *Dakota:* Richardton, 18.8; Rapid City, 16.2. *District of Columbia:* Washington City, 7.2. *Georgia:* Marietta, 0.3. *Idaho:* Boise City, trace. *Illinois:* Woodstock, 9.5. *Indiana:* Jeffersonville, 6.6. *Iowa:* Humboldt, 8. *Kansas:* Leavenworth, 3. *Kentucky:* Louisville, 5. *Maine:* Lewiston, 24.8; Cornish, 23.5; Orono, 20.5; Eastport, 14.4; Portland, 13.8; Gardiner, 13.2; Belfast, 13; Skowhegan, 12.4; Bar Harbor, 12.2. *Maryland:* New Midway, 9. *Massachusetts:* Groton, 17; Deerfield, 16; Concord, 14.2; Dudley, 14; Westborough, 12.5; Worcester, 12.3; Lawrence, 12.2; Blue Hill Observatory, Gilbertville, and Springfield, 12; Newburyport, 11.5; Ludlow, 10.6. *Michigan:*

Sault Sainte Marie, 56.5; Central Mine, 23; Bear Lake, 21.2; Calumet, 20.5; Benzonia, 18.5; Hillman, 16; Traverse City, 15.5; Escanaba, 14.8; Alpena, 13.7; Lathrop, 13.6; Buchanan, 12; Marquette, 11.9; Hartford, Maple Hill, and Hart, 11; Mackinaw City, 10.6; Harrisville and North Marshall, 10. *Minnesota*: Saint Vincent, 22; Northfield, 10. *Mississippi*: Palo Alto, 1. *Missouri*: Pierce City, 4.5. *Montana*: Fort Maginnis, 36.5; Fort Assinaboine, 19.2. *Nebraska*: Hay Springs, 13.5. *Nevada*: Toano, 4. *New Hampshire*: North Conway, 31.5; Reymouth, 22.5; Shelburne, 18; Concord, 17; Berlin Mills, 16.5; Manchester, 15.5; Nashua, 12.8; Hanover and Antrim, 11. *New Jersey*: Atlantic City, 4.8. *New Mexico*: Fort Stanton, 10.5. *New York*: Utica, 19.8; Saratoga, 19; Palermo, 12.8; White Plains, 12; Oswego, 11.3. *North Carolina*: trace. *Ohio*: Cleveland, 5.2. *Oregon*: La Grande, 2.2. *Pennsylvania*: Bernice, 18; Allegheny College, 16.5; Dyberry, 14.7; Eagle's Mere, 14; Blooming Grove, 12; Girardville, 11.7; Scranton, 11.3; Drifton, 10.5. *Rhode Island*: Woonsocket, 5. *South Carolina*: Cedar Springs, trace. *Tennessee*: Cookeville, 3.5. *Texas*: El Paso, 1.8. *Utah*: Salt Lake City, 8.2. *Vermont*: Strafford, 21; Woodstock, 20.5; Brattleborough, 20; Northfield, 18.6; Newport, 18; Manchester, 17.1; Burlington, 12. *Virginia*: Rappahannock, 11.3. *Washington Territory*: Spokane Falls, 3.1. *West Virginia*: Middlebrook, 22; Helvetia, 14.2. *Wisconsin*: Waucousta, 20.5; Green Bay, 17.8; Embarras, 14.5; Delavan, 11.6. *Wyoming*: Camp Sheridan, 20.2; Fort Washakie, 10.4.

DEPTH OF UNMELTED SNOW ON GROUND AT END OF MONTH.

[Expressed in inches and tenths.]

At the end of February there was practically no unmelted snow on the ground in districts to south of the fortieth parallel east of the Rocky Mountains. In portions of Minnesota, Wisconsin, Michigan, and in the mountains of New England, there were from twenty to fifty inches.

Arizona: Prescott, 7. *Arkansas*: Eureka Springs, 0.6; Lead Hill, 0.1. *Colorado*: Pike's Peak, 3; Denver, 1. *Connecticut*: New Hartford, 10; Middletown and New Haven, trace. *Dakota*: Richardton, 12; Webster, 7; Bismarck and Fort Totten, 6; Huron, 4; Rapid City, 1.8; Parkston and Fort Sully, trace. *District of Columbia*: Washington City, trace. *Illinois*: Belvidere, 3; Lake Forest, Woodstock, and Riley, 2; Cedarville, 1.3; Sycamore, 1; Aurora, Oswego, Prairieville, Ottawa, Hennepin and Onelda, trace. *Iowa*: Cresco, 1.8; Maquoketa, 4; Dubuque, 3.5; Muscatine, 3; Cedar Rapids, 0.8; West Bend, 0.6; Clinton, 1; Fort Madison, drifts. *Maine*: Cornish, 36; Lewiston, 30; Gardiner and Showhegan, 24; Portland, Belfast and Fairfield, 12; Bar Harbor, 6; Orono, 5; Eastport, 1.4. *Massachusetts*: Rowe, 36; Deerfield, 16; Groton, 12; Fitchburg, 9; Amherst, 6; Westborough, 6 (in the woods); Fitchburg, 4; Lowell and Newburyport, 3; Milton, 1; Gilbertville, drifts; Blue Hill Observatory, trace. *Michigan*: Calumet, 56; Central Mine, 55; Lathrop, 44; West Branch, 36; Marquette, 31; Maple Hill, 27; Mackinaw City, Snowflake and Benzonia, 20; Hart and Bear Lake, 19; Fletcher, 18; Mio, 16; Big Rapids, 14; Hillman, 13; Alpena, 10; Escanaba and May, 8; Greenville, 6; Grand Haven, 5.8; Alma, 4.5; Bad Axe, 4; Saint Louis, 3; Traverse City and North Marshall, 2; Williamston and Hastings, 1; Grand Rapids, Lansing, and Pulaski, 0.5. *Minnesota*: Minneapolis and Spring Valley, 24; Red Wing, 23; Rochester, 22; Princeton, 21; Glenwood and Morris, 20; Leech Lake Dam, 19; Pine River Dam, 18; Lake Winnibigoshish Dam, 16; Saint Cloud, 15.5; Duluth and Alexandria, 15; Northfield, 12; Saint Paul, 10; Mankato, 7; Rolling Green, 6; Moorhead, 4; Pokegama Falls Dam, 2.9; Saint Vincent, 2. *Missouri*: Pierce City, trace. *Montana*: Poplar River, 6.7; Fort Maginnis, Fort Custer, and Fort Assinaboine, 4; Helena, 2. *Nebraska*: Valentine and Hay Springs, 2; North Platte, 0.1; Marquette, trace. *New Hampshire*: Plymouth, 36; Hanover, 35; Walpole, 30; Concord, 18; Manchester, 9; Manchester, 8.5; Nashua, 6. *New York*: Utica, 21; Palermo, 20; Oswego, 10; Cooperstown, 5;

Menands, 3; Humphrey and Albany, 2; Buffalo and Rochester, 1; Boyd's Corners and Ithaca, drifts. *Ohio*: Garrettsville, trace. *Pennsylvania*: Dyberry, 18; Wellsborough, 14.3; Blooming Grove, 12; Drifton, 6; Grampian Hills, 4; Erie, 0.6; Quakertown, drifts; Phillipsburg and State College, trace. *Tennessee*: Jonesborough, Watkins, and Milan, trace. *Utah*: Salt Lake City, 2.4. *Vermont*: Lunenburg, 37; Northfield and Chelsea, 34; Newport and Stafford, 30; Burlington, 20; Manchester, 15. *Virginia*: Wytheville, 0.2; Rappahannock, trace. *Wisconsin*: Embarras, 56; Manitowoc, 36; Waucousta, 15.5; Green Bay, 14; Fond du Lac, 12; Madison, 10; La Crosse, 8; Milwaukee and Beloit, 2. *Wyoming*: Camp Sheridan, 16; Fort Washakie, 8; Fort Bridger, 1; Cheyenne, 0.1.

EXCESSIVE PRECIPITATION.

Table showing for the month of February monthly rainfalls of 10 inches, or more; rainfalls of 2.50 inches, or more, in any 24 consecutive hours; and rainfalls equaling or exceeding one inch in one hour.

States and stations.	Rainfall of 10 inches, or more, per month.		Rainfall of 2.50 inches, or more, in 24 hours.			Rainfall equaling or exceeding one inch per hour.			
	Year.	Amt.	Year.	Day.	Amt.	Year.	Day.	Time	Amt.
<i>Alabama.</i>		<i>Inches.</i>			<i>Inches.</i>			<i>h. m.</i>	<i>Inches.</i>
Carlswille.....	1874		5-6		2.80				
Marion.....	1872		5		3.45	1874	17	1 00	1.00
Mobile.....	1875		19		2.57				
Do.....	1880		1		2.78				
Do.....	1881		6		4.01				
Do.....	1887		20		4.22				
Montgomery.....	1873		14		2.87				
Do.....	1882		8		3.13				
Do.....	1884		17		2.55				
<i>Arkansas.</i>									
Fort Smith.....	1884	10.72	1883	23-24	2.53				
Do.....	1884		10-11		5.56				
Little Rock.....	1880		27		2.61	1882	27	1 00	2.00
Do.....	1880		28		2.63				
Do.....	1881		17-18		2.88				
Do.....	1882		7		2.79				
Do.....	1882		8		2.59				
Do.....	1882		27-28		3.89				
Do.....	1884		6		3.17				
Do.....	1887		13-14		2.50				
<i>California.</i>									
Los Angeles.....	1884		1-2		3.63	1884	17	1 00	1.00
Do.....	1884		16-17		2.76	1887	14	1 00	1.25
Do.....	1887		14-15		3.94				
San Francisco.....	1887		4-5		3.60				
Do.....	1887		5		2.92				
Santa Cruz.....	1878	16.11							
<i>Connecticut.</i>									
New Haven.....	1878		21-22		4.13				
Do.....	1886		11-12		2.99				
New London.....	1886	11.98	18-19		2.65				
Do.....	1886		12		6.66				
<i>Florida.</i>									
Cedar Keys.....	1885		25		3.27				
Jacksonville.....	1874		14		2.66				
Do.....	1875		19-20		3.99				
Key West.....	1872		5-6		2.89	1872	5-6	1 30	2.00
Do.....	1878		26-27		2.94				
Newport.....	1874		2		3.20				
Pensacola.....	1881		7		2.65				
<i>Georgia.</i>									
Atlanta.....	1881	10.41	1881	8-9	3.33				
Do.....	1882	10.29	1881	11	2.92				
Do.....	1882		28		2.78				
Savannah.....	1874		13-14		3.02				
<i>Illinois.</i>									
Cairo.....	1882	10.14	1873	11-12	3.00				
Do.....	1874		20-21		2.83				
Do.....	1882		15-16		2.66				
Springfield.....	1882		20		3.38				
Do.....	1883		2-3		3.56				
<i>Indiana.</i>									
Indianapolis.....	1882		20		3.02				
Do.....	1883		3		2.50				
<i>Iowa.</i>									
Davenport.....	1883		15-16		2.91				
Keokuk.....	1883		16		3.66				
<i>Kansas.</i>									
Kinsley.....	1874		17-18		3.00	1869	12	2 00	2.00
<i>Kentucky.</i>									
Blandville.....	1874				2.75				
Louisville.....	1882		19-20		2.84				
Do.....	1884		5-6		3.30				
<i>Louisiana.</i>									
Baton Rouge.....	1875	11.60	1874	5	2.58				
New Orleans.....	1875	13.85	1875	19	5.71				
Shreveport.....	1882		2		3.12				
<i>Maine.</i>									
Portland.....	1885		10		2.95				
Do.....	1886		12-13		2.67				
<i>Maryland.</i>									
Baltimore.....	1886		11		2.60				

Table showing for the month of February, &c.—Continued.

States and stations.	Rainfall of 10 inches, or more, per month.		Rainfall of 2.50 inches, or more, in 24 hours.		Rainfall equaling or exceeding one inch per hour.			
	Year.	Amt.	Year.	Day.	Amt.	Year.	Day.	Time.
<i>Massachusetts.</i>		<i>Inches.</i>			<i>Inches.</i>			<i>h. m.</i>
Boston	1886		12		4.45			
<i>Michigan.</i>						1883	16	1 00
Grand Haven								
<i>Mississippi.</i>			1887	19-20	2.53			
Vicksburg								
<i>Missouri.</i>			1887	5	2.91			
Saint Louis	1885		24		3.63			
Do.	1889		19-20		4.44			
Do.	1882							
<i>New Jersey.</i>			1884	26	3.40			
Lambertville	1886		12		2.90			
Do.								
<i>New York.</i>			1885	9-10	2.62			
New York City	1886		11-12		3.25			
Do.	1874	18.87	24-25		11.70			
Nichols	1874		13		10.10			
Oneida								
<i>North Carolina.</i>			1875	24	2.60			
Ashville	1883		17-18		2.63	1884	19	1 00
Charlotte	1877		4-5		3.20	1877	5	1 00
Hatteras	1880		2-3		3.54			
Do.								
Murphy	1875	12.10						
<i>Ohio.</i>			1874	21-22	2.50			
Carthage	1874		21		2.73			
Cincinnati	1884		5-6		2.50			
Do.	1887		2-3		2.98			
Cleveland	1883		2-3		3.62			
Sandusky	1887		10-11		2.98			
<i>Oregon.</i>			1874					
Astoria	1885	12.63						
Do.	1885	10.59						
Do.	1874	12.63	1884	18-19	2.85			
Eola	1878	10.22						
Do.	1879	10.20						
Portland	1878	12.16	1879	11-12	2.80			
Do.	1879	13.22	1882	27-28	2.78			
Do.	1881	13.36						
Do.	1882	10.49						
<i>Pennsylvania.</i>			1883	3-4	3.35			
Erie								
<i>Rhode Island.</i>			1886	11-12	3.50			
Block Island	1886		11-12		4.54			
Do.								
<i>South Carolina.</i>			1885					
Narragansett Pier	1874	10.45	1884	16-17	2.79			
<i>Tennessee.</i>			1879	16-17	2.79			
Charleston	1884		6-7		3.19			
<i>Texas.</i>			1873	11-12	3.08	1873	11	0 50
Chattanooga	1875	12.52	24		4.34	1873	12	0 45
Do.	1875	10.18	1879	16-17	2.50	1881	18	1 00
Knoxville	1884		8-9		2.75			
Do.	1873		15-16		3.17			
Do.	1880		10-11		3.10			
Do.	1880		12-13		3.05			
Memphis	1874		21-22		5.96			
Do.	1874		21-22		5.26			
Nashville	1880		12-13		5.20			
Do.	1881		18		2.59	1874	21	0 51
Do.						1880	13	0 55
<i>Texas.</i>			1878	6-7	3.00			
Belmont Farm	1874	12.25	1874	26-28	7.00			
Clarksville	1872		27-28		3.69	1872	27	0 55
Galveston	1881		1		3.62	1888	22	1 00
Do.	1877		11-13		7.31			
Melissa	1875		14-15		2.75			
New Ulm	1885		22-23		2.51			
Palatine								
<i>Virginia.</i>			1875	20	6.10			
Capeville	1875		24		2.56			
Lynchburg	1872		8-9		3.45			
Norfolk	1873		6-7		2.53			
Do.								
<i>Washington.</i>			1878	10.22				
Bainbridge Island	1885	11.20	1885	25-26	2.61			
Canby, Port	1885	18.50						
Neah Bay	1886	14.13						
Do.	1878	14.20	1881	1	2.61			
Olympia	1879	15.59						
Do.	1881	16.28						
Do.	1885	12.37	1886	6-7	2.74			
Tatoosh Island	1885	13.28	1886	5-6	2.73			
Do.	1882	10.29	1886	27-28	3.11			
Do.	1887	11.30	1887	27-28	3.66			
Do.			1887	27-28	3.30			

Galveston, Tex., there have been two storms during which 3 inches or more have fallen in one hour or less; these are the most remarkable hourly rainfalls occurring in February that are shown by Signal Service records.

Rainfalls amounting to, or exceeding, two inches for a period of twenty-four hours or less, in the month of February, have not been of frequent occurrence in any part of the United States, and over extensive portions of the country no such rainfalls have ever been reported; the latter is true of the upper lake region, extreme northwest, Missouri and Rio Grande valleys, and Rocky Mountain districts. The portions of country that have been most frequently subjected to daily rainfalls of 2.50 inches, or more, are the Gulf States, Tennessee, and the central Mississippi valley; the records at Mobile, Ala., and Little Rock, Ark., showing the largest number of storms of this character. In the upper Ohio valley, lower lake region, and the states bordering on the Atlantic coast, the records of many stations show that no such rain storms have ever occurred, and that not more than two have been recorded at any one station.

Monthly rainfalls of ten inches, or more, in February in past years have been confined principally to the north Pacific coast, in which region they have been comparatively frequent; other sections of the country in which they have occurred are eastern Tennessee and the adjacent portions of North Carolina and Georgia, and southern Louisiana.

The geographical distribution of excessive monthly, daily, and hourly rainfalls for the months of January and February appears to be much the same, but on the north Pacific coast they are more frequent in January than in the succeeding month.

Excessive precipitation for the month of February, 1888.

States and stations.	Monthly, 6 inches, or more.	Specially heavy.					
		2 inches, or more, per day.			At rate of 1 inch, or more, per hour.		
		Am't.	Duration.	Date.	Am't.	Duration.	Date.
<i>Alabama.</i>			<i>h. m.</i>			<i>h. m.</i>	
Mobile	10.33	2.74	16 00	23			
Montgomery	7.67	2.62	10 49	23			
Union Springs	6.57	2.95	24 00	22			
Auburn	6.34	2.79	24 00	24			
Monroe		2.05	24 00	22			
Gadsden		2.00	24 00	24			
Talladega		2.12	24 00	7			
Bermuda		2.05		22			
<i>Connecticut.</i>							
New Hartford	7.07	2.25		20, 21			
<i>Florida.</i>							
Saint Francis Barracks	9.20	4.80		2			
Do.		2.60	23 00	10, 11			
Tallahassee	8.10	4.30		20, 21			
Duke	7.35	4.00	21 00	2, 3			
Titusville	7.11	2.08	23 40	10, 11			
Pensacola	6.86	2.61	24 30	22, 23			
Manatee	6.82						
Merritt's Island	6.01						
Archer		2.40	14 00	21			
Cedar Keys		2.26	8 05	21			
<i>Georgia.</i>							
Quitman	7.75	3.60	25 30	20, 21			
Forsyth	7.37						
Milledgeville	6.34	2.35	24 00	23			
<i>Illinois.</i>							
Rockford		2.25		8			
<i>Indian Territory.</i>							
Tulsa	6.86	4.80		24			
<i>Louisiana.</i>							
Donaldsonville	11.63	5.10		22			
New Orleans	11.21	3.73		23, 24			
Mandeville	9.02	4.42		22, 23			
Luling	8.19	2.19		20			
Do.		2.79		22, 23			
Morgan City	7.60	2.60		23			
Grand Coteau	7.44	5.32	52 00	22 to 24			
Lake Charles	6.25	4.50		22			
New Iberia	6.01						
Vidalia		2.25		10			
Clinton		3.50		22, 23			
Baton Rouge		3.05		22			
Breaux Bridge		2.53		23			
Saint Martinville		3.05		23			
Abbeville		2.80		22			
Abbeville		3.02		22			
<i>Maine.</i>							
Orono	6.11	2.26		20			
Portland		2.25		20, 21			
<i>Minnesota.</i>							
Minneapolis		2.38		11			
<i>Mississippi.</i>							
Biloxi	8.90	6.40	102 00	20 to 24			
Starkville	6.86						

The records of the regular and voluntary Signal Service stations, covering periods ranging in general from twelve to seventeen years, show that during the month of February very few rainfalls in excess of one inch per hour have occurred since establishment of stations, and that they have been most frequent in the state of Tennessee. At

Excessive precipitation, etc.—Continued.

States and stations.	Monthly, 6 inches, or more.	Specially heavy.					
		2 inches, or more, per day.			At rate of 1 inch, or more, per hour.		
		Am't.	Duration.	Date.	Am't.	Duration.	Date.
<i>Missouri.</i>			<i>h. m.</i>			<i>h. m.</i>	
Conception	2.00		•	3			
<i>New Jersey.</i>							
Tenafly	6.01	2.80		25			
<i>New York.</i>							
White Plains	10.43	3.90	24 00	20			
Garrison		2.02	24 00	21			
Utica		2.25		4, 5			
<i>North Carolina.</i>							
Salem	6.42						
Southport	6.25						
Wilmington	6.22	3.41	25 10	20, 21			
<i>Pennsylvania.</i>							
Easton	7.25						
Wellaborough		3.00	15 40	18, 19			
<i>South Carolina.</i>							
Abbeville	7.75						
Evergreen	7.50	2.14		25			
Newbury	6.43	2.00		24			
Balfast	6.25						
Cedar Springs	6.00	3.52		25			
Black's		2.00		25			
<i>Texas.</i>							
Galveston	7.54	3.75	12 58	22	3.31	1 00	22
Austin		4.27	32 30	14, 15			
Cedar Hills		3.50	24 15	22, 23			
Corpus Christi				1.30	1 00		4
<i>Vermont.</i>							
Manchester	2.10	19 00		20			
<i>Washington Territory.</i>							
Neah Bay	7.86						

* Less than 24 hours.

In the following table are given rainfalls of 2.50 inches or more per day, and of 1 inch or more per hour, as shown by records of self-registering rain-gauges at stations of the Philadelphia Water Department:

Station.	Length of record.	2.50 inches or more per day.			1.00 inch or more per hour.		
		Date.	Duration.	Amount.	Date.	Duration.	Amount.
Frederick	1885-'7	Aug. 3, 1885	<i>h. m.</i>	<i>Inches</i>	Aug. 3, 1885	<i>h. m.</i>	<i>Inches</i>
Doylestown	1884-'7	June 26, 1884	8 50	4.00	June 26, 1884	0 14	0.50
		Aug. 3, 1885	15 0	5.89	Aug. 5, 1884	1 14	0.23
		May 8, 1886	23 13	3.42	Aug. 3, 1885	0 20	1.50
		June 22-23, 1887	9 7	2.51	July 30, 1887	0 12	0.76
Philadelphia ... (Water Dept.)	1885	Aug. 3, 1885	13 24	3.86	July 6, 1884	1 0	1.50
		May 8, 1886	27 30	3.36	July 7, 1885	0 29	0.90
		June 22-23, 1887	10 54	2.97	Aug. 3, 1885	1 25	2.80
		Sept. 11-12, 1887	10 5	2.66	Aug. 25, 1885	0 56	1.15
Forks of Ne- shaminy.	1886-'7	May 8, 1886	18 18	2.46	July 8, 1886	0 11	0.16
		June 22-23, 1887	12 39	3.12	July 23, 1887	0 44	dr. 86
					July 26, 1887	0 33	0.16
					July 29, 1887	0 42	1.16

a, of this amount, 3.27 inches fell in 4 hours and 8 minutes; rate per hour, 0.78. b, 1.30 of this amount in 20 minutes; rate per hour, 3.90. c, 4.40 of this amount in 1 hour and 43 minutes; rate per hour, 2.52. d, 0.92 of this amount in 13 minutes; rate per hour, 4.26. e, 0.62 of this amount in 7 minutes; rate per hour, 5.34.

For the above data the Chief Signal Officer is indebted to Chief Engineer John L. Ogden, Board of Public Works, Philadelphia, Pa.

The most remarkable of these rainfalls were those of August 3, 1885, on which date more than 5.00 inches fell at Frederick

and Doylestown, more than 3.00 inches falling in about four hours at the former station, and nearly 4.50 inches in one hour and forty-three minutes at the latter station, while the amount given for thirteen hours in Philadelphia is nearly 4.00 inches. The storm of July 26, 1887, appears to have given the heaviest rate of fall per hour (5.34 inches); but this storm was of short duration, the actual amount of rainfall being 0.62 inch for seven minutes; it is, therefore, possible that this fall may have been equalled or exceeded in some of the other storms recorded, and it is probable that during the remarkably heavy fall at Doylestown on August 3, 1885, a rate of fall was attained which would have given a much larger amount than 2.52 inches per hour, the actual fall for that storm.

Rainfalls of four inches or more, and the heaviest rainfalls of each year, during a single storm, at Saint Louis, Mo., from 1888 to 1887, as shown by records of the late Dr. G. Engelmann (from 1838-'77) and of the signal office (1878-'87).

Year.	Month.	Date.	Duration.	Am't.	Year.	Month.	Date.	Duration.	Am't.
			<i>h. m.</i>	<i>Inch.</i>				<i>h. m.</i>	<i>Inch.</i>
1838.....	January....	6-7	14 00	2.07	1861.....	March.....	31	10 00	2.34
1839.....	June.....	7-8	30 00	2.81	1862.....	December..	13-14	30 00	4.47
1840.....	October....	18	21 00	3.73	1863.....	August.....	9-10	25 00	3.86
1841.....	August.....	22	5 00	4.78	1864.....	May.....	10	10 00	2.34
1842.....	June.....	30	16 00	1.96	1865.....	March.....	29-30	40 00	4.90
1843.....	June.....	9	2 00	2.30	1866.....	August.....	31	3 00	3.23
1844.....	May.....	15-16	33 00	4.37	1867.....	May.....	27	18 00	4.42
1845.....	May.....	22	11 06	3.70	1868.....	August.....	• 30	11 00	3.99
1846.....	June.....	3-4	15 00	4.00	1869.....	November..	16	18 00	3.15
1847.....	October....	20-22	49 00	6.59	1870.....	August.....	2	4 00	2.50
	May.....	6	3 00	5.22	1871.....	January....	13-14	42 00	3.00
	June.....	2	5 00	6.17	1872.....	June.....	27	4 00	3.49
	June.....	21-22	29 00	7.55	1873.....	June.....	9-10	27 00	3.90
	August....	15	1 00	5.05	1874.....	May.....	2-4	28 00	2.58
1849.....	July.....	5-6	30 00	3.88	1875.....	June.....	17	3 00	3.10
1850.....	November..	26-27	26 00	4.38	1876.....	June.....	29-30	16 00	2.43
1851.....	August....	2-3	21 00	3.95	1877.....	June.....	1	13 00	1.64
1852.....	March.....	11-13	53 00	5.54	1878.....	August....	9-10	11 00	3.23
1853.....	May.....	2-3	35 00	2.88	1879.....	April.....	14	5 00	2.00
1854.....	April.....	26-27	22 00	4.34	1880.....	May.....	8-9	8 00	1.32
1855.....	August....	15	8 00	4.19	1881.....	November..	17-18	26 40	2.99
1856.....	April.....	30	5 00	3.80	1882.....	February..	19-20	24 00	4.44
1857.....	February..	6	9 00	2.91	1883.....	August....	15	1 35	1.85
1858.....	July.....	11	10 00	4.18	1884.....	October....	4	1 25	1.34
	December..	4	15 00	5.00	1885.....	June.....	19-20	14 05	3.12
1859.....	June.....	18-20	30 00	7.83	1886.....	September.	4	4 20	2.62
1860.....	June.....	2-3	12 00	3.73	1887.....	November..	26	7 35	2.32

* Gauge filled and ran over.

Note.—The duration of the rain, as given above, covers some time when the rain is very light.

The record at Saint Louis shows that during the last forty-seven years storms giving rainfalls of four inches or more occurred nineteen times, and that these nineteen storms occurred in thirteen years, leaving thirty-four years of the period free from such storms. The duration of the storms giving four or more inches of rainfall ranges from one and one-quarter to fifty-three hours, the average being about twenty-one hours. The total duration of all storms (for which the precipitation was four or more inches) was four hundred and sixteen hours, and the aggregate rainfall 91.42 inches, the average per hour being 0.23 inch. By months, these storms occurred as follows: 1 in February; 2 in March; 1 in April; 3 in May; 4 in June; 1 in July; 3 in August; 1 in October; 1 in November; 2 in December; none occurred in January or September, and about forty per cent. of the entire number occurred in May and June. The year 1848, with respect to these storms, was the most remarkable one of the whole series, there having been four in that year; the same year also shows the maximum rate of fall, viz., 5.05 inches in one hour and fifteen minutes on August 15th.

WINDS.

The most frequent directions of the wind during February, 1888, are shown on chart ii, by arrows flying with the wind. In most districts the prevailing winds of the month were variable, as will be seen from the chart; they were, however, generally from southwest, west, or northwest in the Lake region, New England, and the middle Atlantic states.

HIGH WINDS.

No maximum velocities of fifty or more miles per hour, other than those given in the table of miscellaneous meteorological data, have been reported.

LOCAL STORMS.

Chester, Nassau Co., Fla.: at 6.30 a. m. on the 7th a severe